

### **REMARKS**

By this amendment, Applicants: amend the specification to correct grammatical errors and to conform the specification to the drawings; cancel claims 3, 12, 23, 30, 34-36, 39, 48 and 54-56; amend claims 1, 4, 6-11, 13-16, 21, 24, 26-29, 31-33, 37, 40, 42-47 and 49-52; and amend Figure 5C of the drawings in order to avoid duplicative use of reference numerals.

Applicants note that the amendments to claims 6-10, 16, 26-28, 42-46 and 52 are taken to correct grammatical errors. Accordingly, Applicants submit that these amendments are taken for reasons unrelated to patentability and that the scope of claims 6-10, 16, 26-28, 42-46 and 52 is not affected by the amendments herein.

#### ***The Previous Restriction Requirement***

In the Office Action dated October 6, 2004, the Examiner withdrew the previous restriction requirement in response to Applicants Petition under 37 CFR §§ 1.144 and 1.181. Applicants thank the Examiner for withdrawing the restriction requirement and examining claims 1-56 on their merits.

#### ***Claim Rejections – 35 U.S.C. § 102***

In the Office Action, the Examiner rejected claims 1-56 under 35 U.S.C. § 102(b) as being anticipated by Mitchell et al. (U.S. Patent No. 5,872,973). By this amendment, Applicants have amended claims 1, 4, 6-11, 13-16, 21, 24, 26-29, 31-33, 37, 40, 42-47 and 49-52 and canceled claims 3, 12, 23, 30, 34-36, 39, 48 and 54-56. Applicants

respectfully traverse this rejection with respect to claims 1, 2, 4-11, 13-22, 24-29, 31-33, 37, 38, 40-47 and 49-53 for at least the following reasons.

Regarding claims 1, 21 and 37, the Examiner states that Mitchell et al. teaches

a first [Patron Object 102] and second instance [Patron Object 106] and an association [103 ('mapper' or 'mapping object')]

creating, for the first instance [e.g., 102], a reverse link [Probe] that defines a relationship between the first instance and the association [See Figs. 1-2 & Column 8, lines 10-32]

{and}

determining a relationship between the first and second instances based on the reverse link.

*Office Action*, p. 2, l. 19, through p. 3, l. 8 (square-bracketed material in original); see also *id.* at p. 7, ll. 1-2 and 8-9. Applicants respectfully disagree with the Examiner's interpretation of Mitchell et al.

The Examiner asserts that Mitchell et al. determines a relationship between the first and second patron objects based on the probe. See *Office Action*, p. 3, ll. 4-8. However, the probe disclosed by Mitchell et al. is not used for this purpose. In Mitchell et al., "[p]robes are callback functions that are invoked when data (typically in an object field) change." Col. 30, ll. 52-57. For example, mapper 103 may synchronize the value in a field 101 in the first patron object 102 with the value in another field 105 in a second patron object 106 by setting corresponding probes on fields 101 and 105. See col. 8, ll. 49-56; and col. 14, ll. 5-8. When the value in field 105 is changed, its probe "fires" and mapper 103 "simply gets the values from the source side parameter [e.g., field 105] and sets the value on the destination side [field 101] to this new value." (see col. 14, ll. 8-43).

However, Mitchell et al. does not teach using the probe to determine a relationship between instances of the patron objects as asserted by the Examiner. In fact, Mitchell et al. specifies that “[t]he mapper [103] is never referenced or visible to ... the patron objects” (see col. 9, ll. 15-16), and that “the [patron] object has no knowledge of which objects (if any) have placed [the] probes” (see col. 31, ll. 36-37).

Further, Applicants note that claims 1, 21 and 37 have been amended to incorporate the recitations of claims 3, 23 and 39, respectively. With respect to these recitations, the Examiner states that Mitchell et al. discloses “the instance [e.g. 102 or 106] is associated with a first wrapper [EosConnection (See Column 16, lines 10-26)] defining the reverse link as claimed. Applicants respectfully disagree with the Examiner’s interpretation of Mitchell et al. The EosConnection described by Mitchell et al. “is a simple wrapper around the RPC calls used in the network connection.” This is not a wrapper defining the probe (which the Examiner alleges to be the reverse link), as asserted by the Examiner.

For at least these reasons, Mitchell et al. fails to support the rejection of claims 1, 21 and 37 under 35 U.S.C. § 102(b). Accordingly, Applicants respectfully request that the rejection of these claims under 35 U.S.C. § 102(b) be withdrawn and the claims allowed.

Claims 2, 4, 5, 22, 24, 25, 38, 40 and 41 depend, directly or indirectly, from one of claims 1, 21 and 37. As explained, the rejection of claims 1, 21 and 37 under 35 U.S.C. § 102(b) is not supported by Mitchell et al. Therefore, the rejection of claims 2, 4, 5, 22, 24, 25, 38, 40 and 41 is likewise not supported by Mitchell et al. for at least the

reasons given above, and Applicants respectfully request that the rejection of these claims be withdrawn and the claims allowed.

Further, with respect to claims 4, 24 and 40, the Examiner states that

Mitchell et al. discloses:

defining a pointer [probe by field or path, termed 'connection descriptor'] in a first table that references a second table [See Column 22, line 60 – Column 23, line 48]; and defining a pointer ['semantic link'] in the second table ['the table containing the connection descriptor' (See Column 21, line 34 – Column 23, line 48)] that references that *instance* [EosMapFieldtoField (e.g., 103)] of the association class [EosMapElement] as claimed.

*Office Action*, p. 3, l. 20, through p. 4, l. 4 (square-bracketed material in original) (emphasis added); see also *id.* at p. 7, ll. 1-2 and 8-9.

However, the table referenced by the Examiner is used to initialize the semantic links. See Mitchell et al., col. 21, ll. 41-47; and col. 22, ll. 25-31. Thus, contrary to the Examiner's assertion, the semantic link in the table containing the connection descriptor does not reference an *instance* of the EosMapElement class. Instead, the table contains a generic description of connections between classes of objects.

Moreover, in regard to claims 5, 25 and 41, the Examiner states that Mitchell et al. teaches that "determining a relationship {between the first and second instances} includes: collecting a reference [fRightSide] reflecting a relationship between the association [103] and the second instance [106] based on the pointer in the second table [See Column 21, line 34 – Column 23, line 48] as claimed." *Office Action*, p. 4, ll. 5-9 (square-bracketed material in original); see also *id.* at p. 7, ll. 1-2 and 8-9.

However, contrary to the Examiner's assertion, the member fRightSide does not reflect a relationship between the mapper 103 and an *instance* of the patron object 106,

and is not used to determine a relationship between *instances*. Instead, it represents the field on which a probe is to be set when the semantic link is *initialized*. See Mitchell et al., col. 22, ll. 27-34, and col. 23, ll. 2-7.

Therefore, the rejection of claims 4, 5, 24, 25, 40 and 41 is not supported by Mitchell et al. for at least these additional reasons. Accordingly, Applicants respectfully request that the rejection of these claims under 35 U.S.C. § 102(b) be withdrawn and the claims allowed.

In regard to claims 6, 26 and 42, the Examiner states that Mitchell et al. teaches:

for *each* class *instance* ...

- (i) creating a first level wrapper table [See Claim 4 above] including a pointer [probe] to a second level wrapper table ['the table containing the connection descriptor' (See Column 21, line 34 – Column 23, line 48)] associated with the association class; and
- (ii) creating N [one entry for each mapper object present in the table] pointers ['semantic links'] in the second level wrapper table [See above & Claim 4] that each references an *individual instance* [EosMapFieldToField (e.g. 103)] of the association class as claimed.

*Office Action*, p. 4, l. 16, through p. 6, l. 6 (square-bracketed material in original) (emphasis added); see also *id.* at p. 7, ll. 1-2 and 8-9.

However, the first table referenced by the Examiner is not created “for *each instance*” of the patron object. Nor does the semantic link point to or reference an individual *instance* of the EosMapElement class, as alleged by the Examiner. As explained above with respect to claims 4, 24 and 40, the table containing the connection descriptor contains a generic description of connections between *classes* of objects, and is applied to the class as a whole, rather than to individual instances of the class. See Mitchell et al., col. 21, ll. 41-47; and col. 22, ll. 25-31.

Therefore, the Examiner's rejection of claims 6, 26 and 42 is not supported by Mitchell et al. Accordingly, Applicants respectfully request that the rejection of these claims under 35 U.S.C. § 102(b) be withdrawn and the claims allowed.

Claims 7, 8, 27, 28, 43 and 44 depend, directly or indirectly, from one of claims 6, 26 and 42. In addition, the rejection of these claims is further based upon the Examiner's assertion that Mitchell et al. teaches "new wrappers and pointers are created for new associations on new class *instances* as claimed." *Office Action*, p. 5, ll. 7-10 (emphasis added). However, as explained above with respect to claims 4, 24 and 40, the Examiner's assertion is not supported by Mitchell et al. Therefore, the rejection of claims 7, 8, 27, 28, 43 and 44 likewise lacks support in the cited art, and Applicants respectfully request that the rejection of these claims be withdrawn and the claims allowed.

The Examiner's rejection of claims 9, 10, 45 and 46 is based upon a similar mischaracterization of Mitchell et al. See *Office Action*, p. 5, l. 11, through p. 6, l. 7, and p. 7, ll. 8-9. As explained above, the first table referenced by the Examiner is not created for each instance of the class. Therefore, the rejection of claims 9, 10, 45 and 46 lacks support in Mitchell et al., and Applicants respectfully request that the rejection of these claims under 35 U.S.C. § 102(b) be withdrawn and the claims allowed.

Further in regard to claims 10 and 46, the Examiner states that Mitchell et al. discloses "X instances [e.g. 104, 107] of a second association class [EosFieldElement] that *each reference* [See Fig. 1] *the class instance*." *Office Action*, p. 5, ll. 19-20 (square-bracketed material in original) (emphasis added); see also, p. 7, ll. 8-9. However, as shown in Figure 1, the right and left side type elements 104 and 107 of

Mitchell et al. are bound to *different* patron objects. Accordingly, Mitchell et al. does not support the Examiner's rejection of claims 10 and 46 for at least these additional reasons, and Applicants respectfully request that the rejection of these claims under 35 U.S.C. § 102(b) be withdrawn and the claims allowed.

With respect to claims 11, 29 and 47, the Examiner states that Mitchell et al. teaches "receiving an association traversal request [due to update of or modification to an Patron Object] for a class instance [Patron Object (e.g. 102, 106)]; and performing an association traversal process ... [See Claims 1-5 above] as claimed." *Office Action*, p. 6, ll. 8-16 (square-bracketed material in original); *see also id.* at p. 7, ll. 3-4 and 8-9.

However, contrary to the Examiner's assertions, the "firing" of a probe "due to update of or modification to a Patron Object" (see Mitchell et al., col. 14, ll. 8-43) cannot be equated with "an association traversal request for a class instance." Further, Mitchell et al. does not teach performing an association traversal in response to the firing of a probe. As explained above with respect to claims 1, 21 and 37, the firing of the probe simply triggers mapper 103 to synchronize the probed fields (*Id.*).

Further, by this amendment, Applicants have amended claims 11, 29 and 47 to incorporate the recitations of claims 12, 30 and 48, respectively. With respect to these recitations, the Examiner reiterates the assertion that the "semantic links" described by Mitchell et al. point to each association instance. However, as explained above with respect to claims 4, 24 and 40, the Examiner's assertion is not supported by Mitchell et al.

For at least these reasons, the rejection of claims 11, 29 and 47 is not supported by Mitchell et al. Accordingly, Applicants respectfully request that the rejection of these claims under 35 U.S.C. § 102(b) be withdrawn and the claims allowed.

Claims 13, 31 and 49 depend from claims 11, 29 and 47, respectively. In addition, the rejection of these claims is further based upon the Examiner's assertion that the "semantic links" described by Mitchell et al. point to each association instance. However, as explained above with respect to claims 4, 24 and 40, the Examiner's assertion is not supported by Mitchell et al. Therefore, the rejection of claims 13, 31 and 49 likewise lacks any basis in Mitchell et al., and Applicants respectfully request that the rejection of these claims be withdrawn and the claims allowed.

The Examiner asserts that "claims 14-20 [and claims 32, 33 and 50-53] repeat limitations of claims 1-11 in various combinations" and thus rejects these claims "on substantially the same basis as one or more of claims 1-11 above." See *Office Action*, p. 6, ll. 20-22, and p. 7, ll. 3-11. However, Applicants respectfully disagree with the Examiner's characterization of these claims, and respectfully note that, "when evaluating the scope of a claim, .... the claim as a whole must be considered." See M.P.E.P. § 2106(II)(C) (8th Ed., Rev. 2, May 2004).

Absent an explanation of the Examiner's interpretation of the Mitchell et al. disclosure with respect to the recitations of claims 14-20, 32, 33 and 50-53, Applicants are unable to make an informed decision regarding the prosecution of these claims. Accordingly, Applicants respectfully request that the Examiner either provide detailed grounds for the rejection of claims 14-20, 32, 33 and 50-53 in a new non-final Office Action or allow these claims.



Further, Applicants point out that each of claims 14-20, 32, 33 and 50-53 contain recitations not present in any of claims 1-11. Accordingly, Applicants must necessarily speculate as to the basis of the Examiner's allegation that Mitchell et al. discloses each and every recitation of these claims.

For example, with respect to claims 18-20, Applicants can find no teaching of an "object manager" in Mitchell et al. and the Examiner has not shown that Mitchell et al. discloses an object manager. Therefore, the cited art does not support the rejection of claims 18-20, and, accordingly, the rejection is improper and should be withdrawn.

Further, with respect to the rejection of claims 14-17, 32, 33 and 50-53, the Examiner apparently relies on the assertion that the semantic links disclosed by Mitchell et al. point to individual *instances* of the EosMapElement class. However, as explained above with respect to claims 4, 24 and 40, the semantic links are generic to the class as a whole, and not specific to instances of the class. See Mitchell et al., col. 21, ll. 41-47; and col. 22, ll. 25-31. Accordingly, the rejection of claims 14-17, 32, 33 and 50-53 is not supported by Mitchell et al., and Applicants respectfully request that the rejection of these claims under 35 U.S.C. § 102(b) be withdrawn and the claims allowed.

### **Conclusion**

In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration and reexamination of this application and the timely allowance of the pending claims.


Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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GARRETT & DUNNER, L.L.P.

Dated: January 5, 2005

By: \_\_\_\_\_

  
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Attachments: Replacement Drawing Sheet showing Figure 5C.

**AMENDMENTS TO THE DRAWINGS:**

The attached replacement drawing sheet includes changes to Figure 5C. Specifically, the upper occurrence of reference number 522 has been changed to –523– in order to avoid duplicative use of reference numbers.

Attachments: Replacement Drawing Sheet showing Figure 5C.